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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

SIMONE, CATHERINE A

ART UNIT

PAPER NUMBER

1772

DATE MAILED: 04/09/2002

4

Please find below and/or attached an Office communication concerning this application or proceeding.

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<b>Office Action Summary</b>	<b>Application No.</b> 09/902,317	<b>Applicant(s)</b> JAN ET AL.	
	<b>Examiner</b> Catherine Simone	<b>Art Unit</b> 1772	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 11-20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                  | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>2</u> . | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### *Election/Restrictions*

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
  - I. Claims 1-10, drawn to a light weight hollow thermoplastic board, classified in class 428, subclass 188.
  - II. Claims 11-20, drawn to a process for producing a light weight hollow thermoplastic board, classified in class 156, subclass 244.11.

The inventions are distinct, each from the other because of the following reasons:

Inventions II and I are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case, the product as claimed in Invention I can be made by another and materially different process without the steps of the Group II process i.e. extruding molten thermoplastic through an extruder having a die assembly with a die with a cavity having a cross-section etc.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

During a telephone conversation with Kenneth Glynn on March 28, 2002 a provisional election was made without traverse to prosecute the invention of Group I,

claims 1-10. Affirmation of this election must be made by applicant in replying to this Office action. Claims 11-20 stand withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

### ***Claim Objections***

2. **Claim 9** is objected to because of the following informalities: The word "boars" in claim 9, line 2 should read "board". Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. **Claims 1, 3, 4, 9 and 10** are rejected under 35 U.S.C. 102(b) as being anticipated by Ho et al. (5,658,644).

Ho et al. discloses a light weight hollow thermoplastic board, which comprises a first planar sheet (Fig. 1, #2), a second planar sheet (Fig. 1, #3), and a plurality of ribs (Fig. 1, #4); wherein said first planar sheet and said second planar sheet are spaced apart by and are interconnected by said ribs (see col. 2, lines 50-55), said ribs being longitudinally extended (see col. 2, line 54) and having shifted patterns. Regarding **claim 3**, the board is inherently constructed in an integral form. Regarding **claim 4**, the

ribs are positioned at right angles (see Fig. 2) to the first planar sheet and the second planar sheet and create rectangular cross-sectioned passageways therebetween (see col. 2, lines 55-60). Regarding **claims 9 and 10**, note board is made of a thermoplastic polymer selected from the groups as recited in the claims (see col. 3, lines 6-15).

### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. **Claim 2** is rejected under 35 U.S.C. 103(a) as being unpatentable over Ho et al. (5,658,644) in view of Hartig (3,509,005).

Ho et al. discloses a light weight hollow thermoplastic board, which comprises a first planar sheet (Fig. 1, #2), a second planar sheet (Fig. 1, #3), and a plurality of ribs (Fig. 1, #4); wherein said first planar sheet and said second planar sheet are spaced apart by and are interconnected by said ribs (see col. 2, lines 50-55), said ribs being longitudinally extended (see col. 2, line 54) and having shifted patterns. However, Ho et al. fails to disclose the ribs having shifted patterns in the form of sigmoid patterns. Hartig teaches that it is known in the art to have ribs having shifted patterns in the form of sigmoid patterns (see col. 3, lines 48-54) for the purpose of forming a light weight hollow thermoplastic board.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the applicant's invention was made to have modified the ribs in Ho et al. to have shifted patterns in the form of sigmoid patterns as suggested by Hartig in order to form a light weight hollow thermoplastic board.

7. **Claims 5-8** are rejected under 35 U.S.C. 103(a) as being unpatentable over Ho et al. (5,658,644) in view of Kawamura (3,274,315).

Ho et al. discloses a light weight hollow thermoplastic board, which comprises a first planar sheet (Fig. 1, #2), a second planar sheet (Fig. 1, #3), and a plurality of ribs (Fig. 1, #4); wherein said first planar sheet and said second planar sheet are spaced apart by and are interconnected by said ribs (see col. 2, lines 50-55), said ribs being longitudinally extended (see col. 2, line 54) and having shifted patterns. However, Ho et al. fails to disclose the ribs creating trapezoidal, elliptical, circular, and u-shaped cross-sectional passageways between the first planar sheet and the second planar sheet. Kawamura teaches that it is known in the art to have ribs creating trapezoidal, elliptical, circular, and u-shaped cross-sectional passageways between the first planar sheet and the second planar sheet (see Figs. 2, 3, 4, 7 and 9) for the purpose of forming a light weight hollow thermoplastic board.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the applicant's invention was made to have modified the ribs in Ho et al. to create trapezoidal, elliptical, circular, and u-shaped cross-sectional passageways as suggested by Kawamura in order to form a light weight hollow thermoplastic board.

**Conclusion**

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The patents are disclosed for further teachings of light weight hollow thermoplastic boards similar to that instantly disclosed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Catherine Simone whose telephone number is (703) 605-4297. The examiner can normally be reached on 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Pyon can be reached on (703) 308-4251. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

*CAS*

Catherine Simone  
Examiner  
Art Unit 1772

April 4, 2002

*Harold Pyon*  
HAROLD PYON  
SUPERVISORY PATENT EXAMINER  
1772

*4/4/02*